CHAPTER 13

CERTIFIED SINGLE-POINT RIGGING PROCEDURES FOR GENERATOR SETS

13-1. Introduction

This chapter contains rigging procedures for single-point lift of generator sets that have been certified for sling load. Each rigging procedure is found in a paragraph that includes a description of the load, materials required for rigging, and steps to complete the procedure. An applicability paragraph is also a part of each paragraph and identifies the certified loads. The certified single-point rigging procedures for generator sets are in this section. Paragraphs 13-2 through 13-7 give detailed instructions for rigging loads.

NOTE: Reach Pendants may be used on all single point loads. A static discharge person is not required when using a Reach Pendant.

13-2. Aviation Ground Power Unit (AGPU)

a. Applicability. The following item in Table 13-1 is certified for all helicopters with suitable lift capacity by the US Army Natick Research, Development, and Engineering Center:

Table 13-1. Aviation Ground Power Unit (AGPU)

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
Aviation Ground Power Unit	4,190	10K	3/3	90

b. Materials. The following materials are required to rig this load:

(1) Sling set (10,000-pound capacity).

(2) Tape, adhesive, pressure-sensitive, 2-inch wide roll.

(3) Cord, nylon, Type III, 550-pound breaking strength.

(4) Webbing, cotton, 1/4-inch, 80-pound breaking strength.

(5) Tie-down strap, cargo, CGU-1/B (4 each).

(6) Webbing, nylon, tubular, 1/2-inch,1000-pound breaking strength.

c. Personnel. Two persons can prepare and rig this load in 10 minutes.

d. Procedures. The following procedures apply to this load:

(1) Preparation. Prepare the load using the following steps:

(a) Stow and secure the towbar with 1/2-inch tubular nylon.

(b) Close all doors, secure handles with tape, and attach four CGU-1/B tie-down straps.

(c) Route one tie-down strap horizontally around the power unit. Position it approximately 16 inches down from the top of the power unit. Repeat using another tie-

down strap positioned approximately 8 inches higher than the first tie-down strap.

(d) Route another tie-down strap through the forklift lift provisions and then vertically around the power unit. Repeat this procedure using another tie-down strap through the other lift provision.

(e) Secure all equipment inside the unit with nylon cord or tape.

(f) Secure exhaust cover closed with tape.

CAUTION

Pay careful attention to securing the exhaust cover closed to preclude possible damage during flight. If cover cannot be adequately secured, it should be removed.

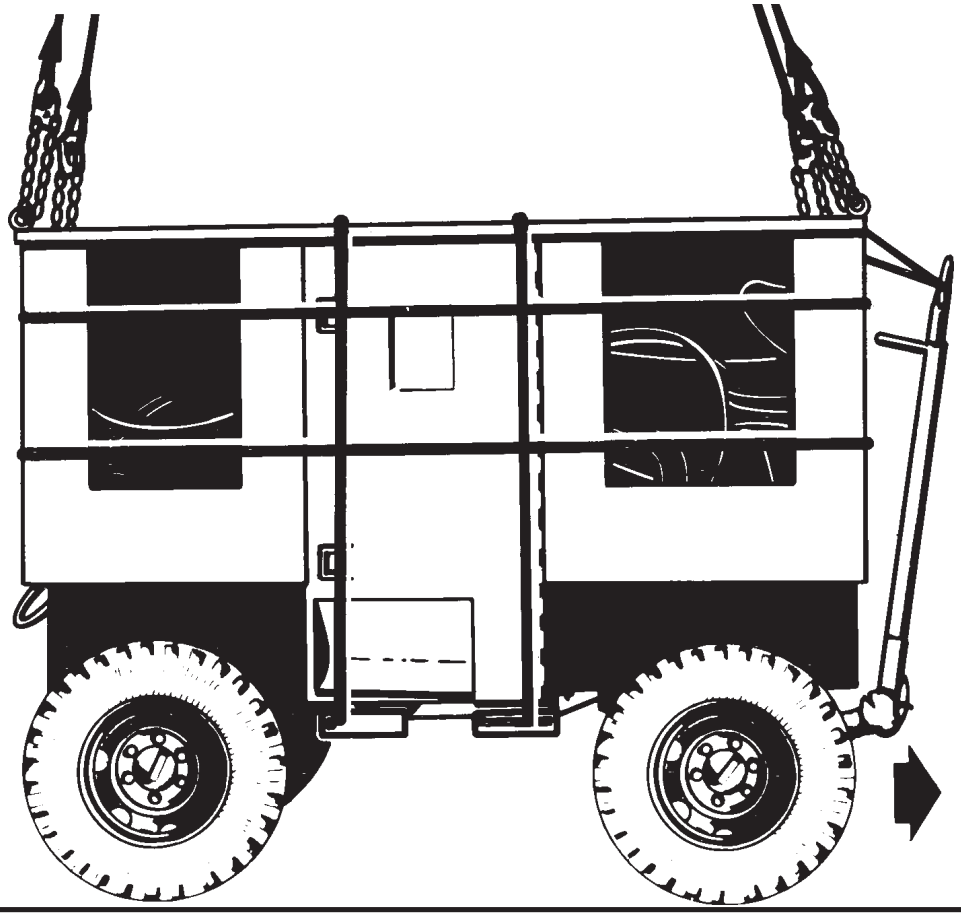
(g) Ensure that fuel tank is not more than 3/4 full. Inspect fuel tank cap, oil filler caps, and battery caps to ensure they are secure.

(h) Engage the parking brake.

(2) Rigging. Rig the load according to the steps in Figure 13-1.

(3) Hookup. The hookup team stands on top of the power unit. The static wand person discharges the static electricity with the static wand. The hookup person places the apex fitting onto the aircraft cargo hook. The hookup team then moves clear of the load but remains close to the load as the helicopter removes slack from the sling legs. When successful hookup is assured, the hookup team quickly exits the area underneath the helicopter to the designated rendezvous point.

(4) Derigging. Derigging is the reverse of the preparation and rigging procedures in steps d (1) and d (2).



RIGGING STEPS

1. Position apex fitting on top of the unit. Route outer sling legs 1 and 2 to the front (tongue) of the trailer and inner sling legs 3 and 4 to the rear. Sling legs 1 and 3 should be on the left side of the load.

2. Loop the chain end of sling leg 1 through the left front lift ring. Place the correct link from Table 13-1 in the grab hook. Repeat with sling leg 2 on the right front lift ring.

3. Loop the chain end of sling leg 3 through the left rear lift ring. Place the correct link from Table 13-1 in the grab hook. Repeat with sling leg 4 on the right rear lift ring.

4. Cluster and tie or tape (breakaway technique) all sling legs together on top of the unit to prevent entanglement during hookup and lift-off.

Figure 13-1. Aviation Ground Power Unit (AGPU)

13-3. Aviation Direct Current Generator Set (ADCGS)

a. Applicability. The following item in Table 13-2 is certified for all helicopters with suitable lift capacity by the US Army Natick Research, Development, and Engineering Center:

Table 13-2. Aviation Direct Current Generator Set (ADCGS)

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
Aviation Direct Current Generator Set	1,100	10K	3/3	90

b. Materials. The following materials are required to rig this load:

(1) Sling set (10,000-pound capacity).

(2) Tape, adhesive, pressure-sensitive, 2-inch wide roll.

(3) Cord, nylon, Type III, 550-pound breaking strength.

(4) Webbing, cotton, 1/4-inch, 80-pound breaking strength.

(5) Felt sheet, cattle hair, Type IV, 1/2-inch or suitable substitute, 30- x 36-inch (4 sheets).

c. Personnel. Two persons can prepare and rig this load in 20 minutes.

d. Procedures. The following procedures apply to this load:

(1) Preparation. Prepare the load using the following steps:

(a) Fold and tape ground cable to the inside of the tongue frame. Roll rear cable in the rack provided. Tape hold-down latch on rear cable rack.

(b) Cover cable receptacles. Secure door latches and tape exhaust stack cover down.

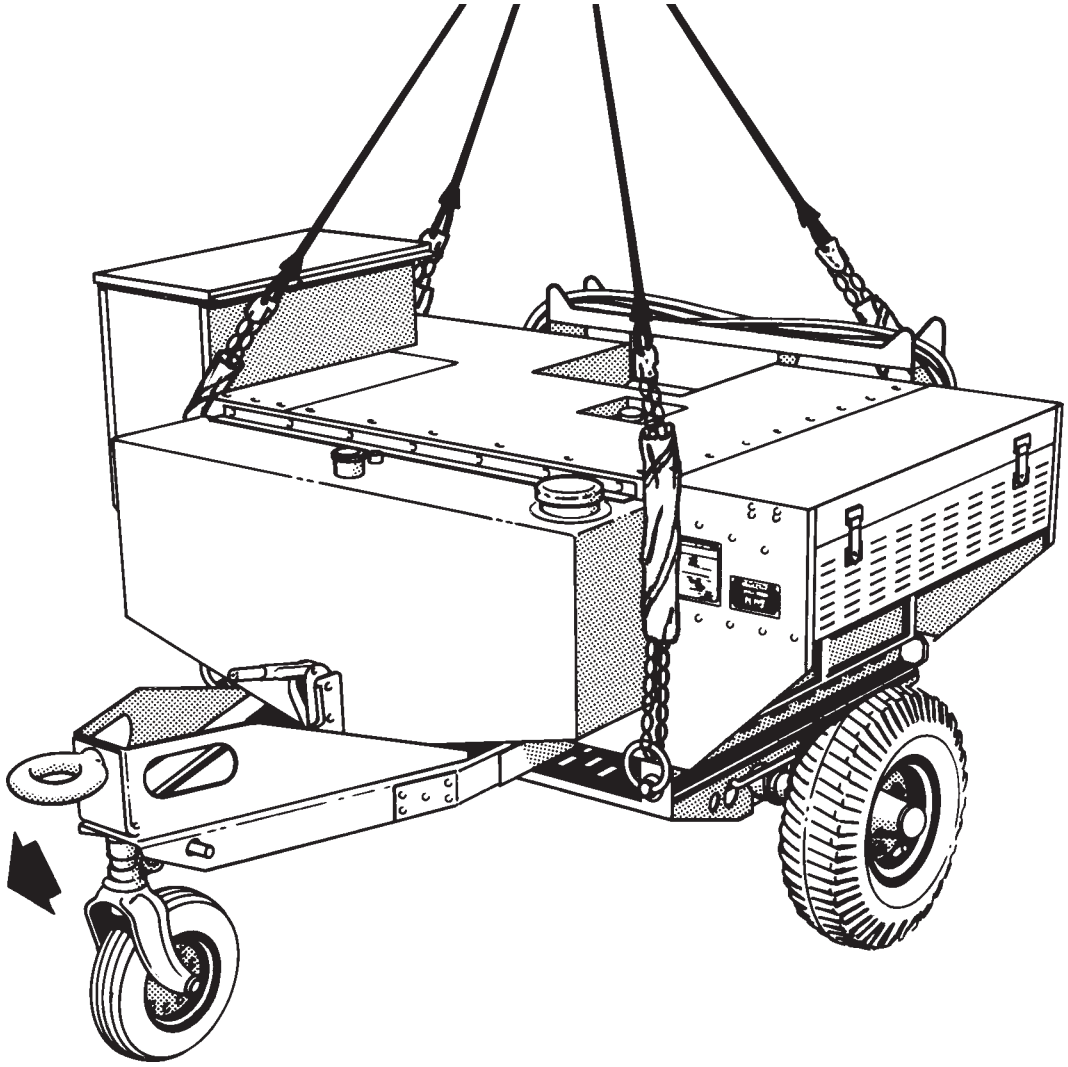
(c) Route a single length of Type III nylon cord under and through the frame, over the exhaust stack cover and instrument cover, and tie to secure both covers. Tape the fuel tank gage.

(d) Set the wheel brakes in the ON position.

(2) Rigging. Rig the load according to the steps in Figure 13-2.

(3) Hookup. The hookup team stands on the side of the load. The static wand person discharges the static electricity with the static wand. The hookup person places the apex fitting onto the aircraft cargo hook. The hookup team then moves clear of the load but remains close to the load as the helicopter removes slack from the sling legs. When successful hookup is assured, the hookup team quickly exits the area underneath the helicopter to the designated rendezvous point.

(4) Derigging. Derigging is the reverse of the preparation and rigging procedures in steps d (1) and d (2).



RIGGING STEPS

1. Position apex fitting on top of the generator set. Route outer sling legs 1 and 2 to the front (tongue) of the trailer and inner sling legs 3 and 4 to the rear. Sling legs 1 and 3 should be on the left side of the load.

2. Loop the chain end of sling leg 1 through the left front lift provision. Place the correct link from Table 13-2 in the grab hook. Repeat with sling leg 2 on the right front lift ring.

3. Loop the chain end of sling leg 3 through the left rear lift provision. Place the correct link from Table 13-2 in the grab hook. Repeat with sling leg 4 on the right rear lift ring.

4. Cluster and tie or tape (breakaway technique) all sling legs together on top of the unit to prevent entanglement during hookup and lift-off.

Figure 13-2. Aviation Direct Current Generator Set (ADCGS)

13-4. Skid Mounted Generators

a. Applicability. The following items in Table 13-3 are certified for all helicopters with suitable lift capacity by the US Army Natick Research, Development, and Engineering Center:

Table 13-3. Skid Mounted Generators

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
MEP-004AAS with Acoustic Suppression Kit, 15KW	4,031	10K	3/3	40
MEP-005AAS with Acoustic Suppression Kit, 30KW	4,556	10K	3/3	65
MEP-103A with Acoustic Suppression Kit, 15KW	4,230	10K	3/3	40
MEP-104A with Acoustic Suppression Kit, 30KW	4,830	10K	3/3	40
MEP-113A with Acoustic Suppression Kit, 15KW	4,230	10K	3/3	40
MEP-114A with Acoustic Suppression Kit, 30KW	4,830	10K	3/3	40

b. Materials. The following materials are required to rig this load:

(1) Sling set (10,000-pound capacity).

(2) Tape, adhesive, pressure-sensitive, 2-inch wide roll.

(3) Cord, nylon, Type III, 550-pound breaking strength.

(4) Webbing, cotton, 1/4-inch, 80-pound breaking strength.

(5) Felt sheet, cattle hair, Type IV, 1/2-inch or suitable substitute, 30- x 36-inch (4 sheets).

c. Personnel. Two persons can prepare and rig this load in 15 minutes.

d. Procedures. The following procedures apply to this load:

(1) Preparation. Prepare the load using the following steps:

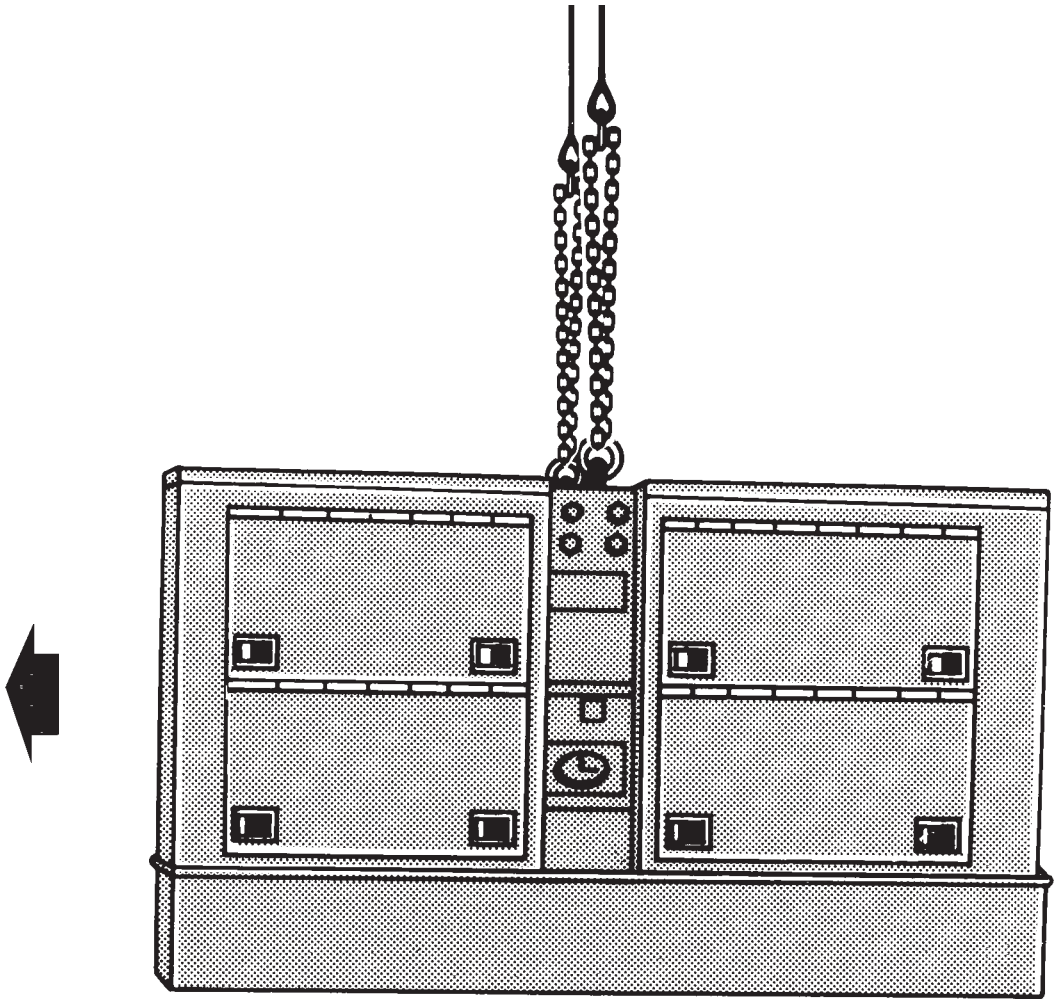
(a) Remove two sling legs from the sling set.

(b) Secure all lids, doors, and caps with tape or Type III nylon cord.

(2) Rigging. Rig the load according to the steps in Figure 13-3.

(3) Hookup. The hookup team stands on top of the load. The static wand person discharges the static electricity with the static wand. The hookup person places the apex fitting onto the aircraft cargo hook. The hookup team then moves clear of the load but remains close to the load as the helicopter removes slack from the sling legs. When successful hookup is assured, the hookup team quickly exits the area underneath the helicopter to the designated rendezvous point.

(4) Derigging. Derigging is the reverse of the preparation and rigging procedures in steps d (1) and d (2).



RIGGING STEPS

1. Position apex fitting on top of the generator set. Route the left sling leg to the left lift provision and the right sling leg to the right lift provision.

2. Loop the chain end of left sling leg through the left lift provision. Place the correct link from Table 13-3 in the grab hook. Repeat with the right sling leg on the right lift provision.

3. Cluster and tie or tape (breakaway technique) all sling legs together on top of the unit to prevent entanglement during hookup and lift-off.

Figure 13-3. Skid Mounted Generators

13-5. MEP112A Generator Pallet

a. Applicability. The following items in Table 13-4 are certified for all helicopters with suitable lift capacity by the US Army Natick Research, Development, and Engineering Center:

Table 13-4. MEP112A Generator Pallet

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
MEP813 TQG, Generator Pallet, Sentinel Radar System	1,600	10K	7/3	70
MEP112A, Generator Pallet	2,150	10K	7/3	100

b. Materials. The following materials are required to rig this load:

(1) Sling set (10,000-pound capacity).

(2) Tape, adhesive, pressure-sensitive, 2-inch wide roll.

(3) Cord, nylon, Type III, 550-pound breaking strength.

(4) Webbing, cotton, 1/4-inch, 80-pound breaking strength.

c. Personnel. Two persons can prepare and rig this load in 15 minutes.

d. Procedures. The following procedures apply to this load:

(1) Preparation. Prepare the load using the following steps:

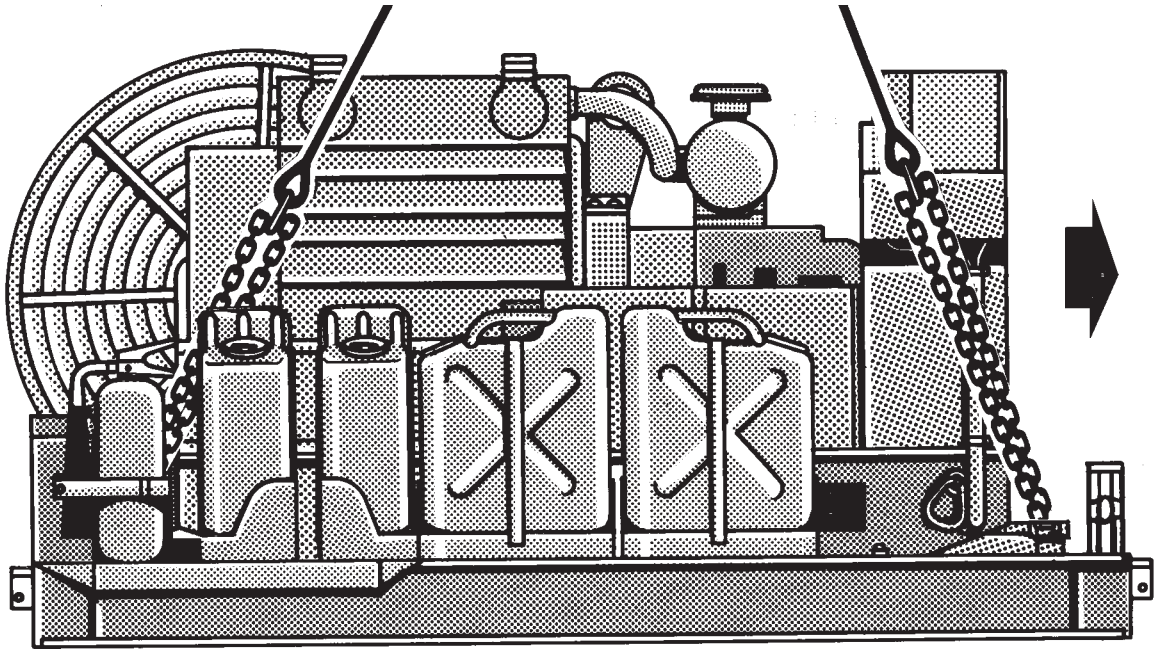
(a) Secure all chains and hoses with tape or Type III nylon cord.

(b) Secure all lids, doors, vents, and caps with tape or Type III nylon cord.

(2) Rigging. Rig the load according to the steps in Figure 13-4.

(3) Hookup. The hookup team stands on top of the load. The static wand person discharges the static electricity with the static wand. The hookup person places the apex fitting onto the aircraft cargo hook. The hookup team then moves clear of the load but remains close to the load as the helicopter removes slack from the sling legs. When successful hookup is assured, the hookup team quickly exits the area underneath the helicopter to the designated rendezvous point.

(4) Derigging. Derigging is the reverse of the preparation and rigging procedures in steps d (1) and d (2).



RIGGING STEPS

1. Position apex fitting on top of the generator set. Route outer sling legs 1 and 2 to the front of the pallet and inner sling legs 3 and 4 to the rear. Sling legs 1 and 3 should be on the left side of the load.

2. Loop the chain end of sling leg 1 through the left front lift provision. Place the correct link from Table 13-4 in the grab hook. Repeat with sling leg 2 on the right front lift ring.

3. Loop the chain end of sling leg 3 through the left rear lift provision. Place the correct link from Table 13-4 in the grab hook. Repeat with sling leg 4 on the right rear lift ring.

4. Cluster and tie or tape (breakaway technique) all sling legs together on top of the unit to prevent entanglement during hookup and lift-off.

Figure 13-4. MEP112A Generator Pallet

13-6. NATO Air Base Satcom (NABS) Power Pallet AN/TSC-85(V)2

a. Applicability. The following item in Table 13-5 is certified for all helicopters with suitable lift capacity by the US Army Natick Research, Development, and Engineering Center:

Table 13-5. NATO Air Base Satcom (NABS) Power Pallet AN/TSC-85(V)2

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
AN/TSC-85(V)2 Power Pallet	8,630	10K	3/3	120

b. Materials. The following materials are required to rig this load:

(1) Sling set (10,000-pound capacity).

(2) Tape, adhesive, pressure-sensitive, 2-inch wide roll.

(3) Cord, nylon, Type III, 550-pound breaking strength.

(4) Webbing, cotton, 1/4-inch, 80-pound breaking strength.

c. Personnel. Two persons can prepare and rig this load in 20 minutes.

d. Procedures. The following procedures apply to this load:

(1) Preparation. Prepare the load using the following steps:

(a) Secure all loose equipment and cables on the pallet with tape or Type III nylon cord.

(b) Close and secure all access covers, vents, and doors. All exhaust covers must be taped.

(c) Remove the cargo cover and store it on the prime mover.

(2) Rigging. Rig the load according to the steps in Figure 13-5.

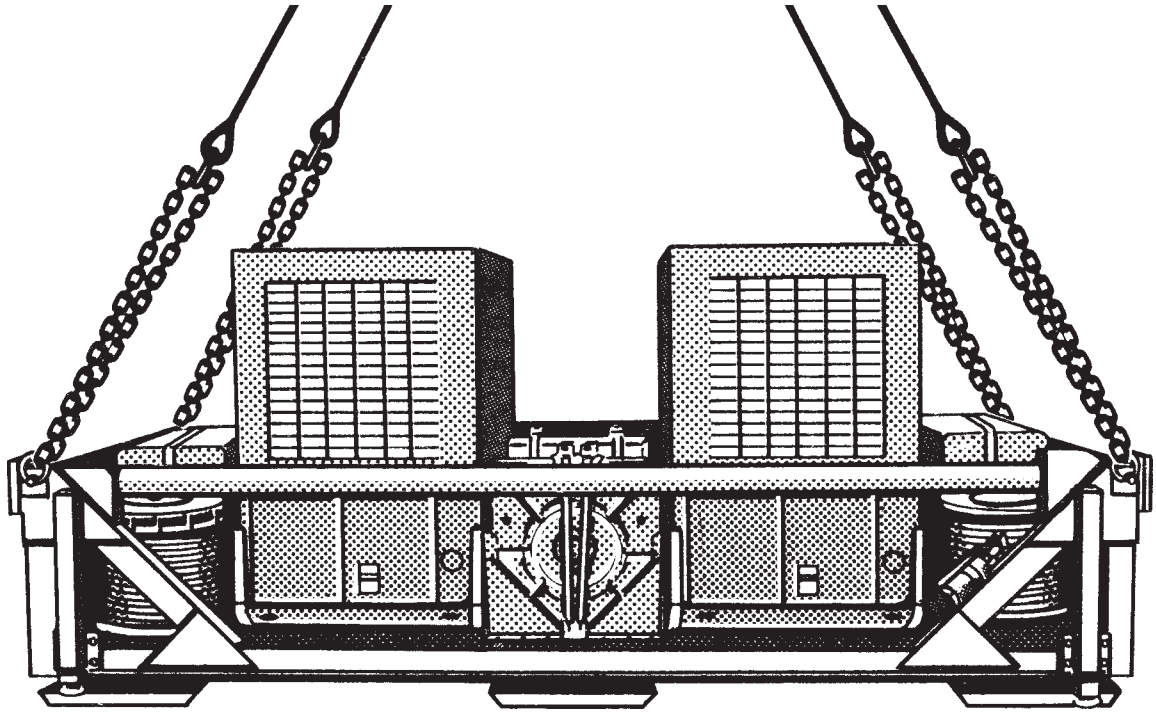
NOTE: The Required Individual Equipment (RIE) case is designated as the forward end for rigging purposes.

(3) Hookup. The hookup team stands on top of the load. The static wand person discharges the static electricity with the static wand. The hookup person places the apex fitting onto the aircraft cargo hook. The hookup team then moves clear of the load but remains close to the load as the helicopter removes slack from the sling legs. When successful hookup is assured, the hookup team quickly exits the area underneath the helicopter to the designated rendezvous point.

CAUTION

Brief the pilot to relax sling tension and hover to the side of the load when releasing the apex fitting to prevent damage to the pallet.

(4) Derigging. Derigging is the reverse of the preparation and rigging procedures in steps d (1) and d (2).



RIGGING STEPS

1. Position apex fitting on top of the generators. Route outer sling legs 1 and 2 to the front of the pallet and inner sling legs 3 and 4 to the rear. Sling legs 1 and 3 should be on the left side of the load.

NOTE: Do not use the lift provisions on the generators.

2. Loop the chain end of sling leg 1 through the left front lift provision located on the pallet. Place the correct link from Table 13-5 in the grab hook. Repeat with sling leg 2 on the right front lift ring.

3. Loop the chain end of sling leg 3 through the left rear lift provision. Place the correct link from Table 13-5 in the grab hook. Repeat with sling leg 4 on the right rear lift ring.

4. Cluster and tie or tape (breakaway technique) all sling legs together on top of the unit to prevent entanglement during hookup and lift-off.

Figure 13-5. NATO Air Base Satcom (NABS) Power Pallet AN/TSC-85(V)2

13-7. Skid Mounted Tactical Quiet Generator Sets

a. Applicability. The following items in Table 13-6 are certified for all helicopters with suitable lift capacity by the US Army Natick Research, Development, and Engineering Center:

Table 13-6. Skid Mounted Tactical Quiet Generator Sets

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
MEP831, 3KW, 60HZ Generator Set	325	10K	3/3	80
MEP802A, 5KW, 60HZ Generator Set	890	10K	3/3	50
MEP812A, 5KW, 400HZ Generator Set	900	10K	3/3	50
MEP803A, 10KW, 60HZ Generator Set	1,180	10K	3/3	50
MEP813A, 10KW, 400HZ Generator Set	1,280	10K	3/3	50
MEP804A, 15KW, 50/60HZ Generator Set	2,125	10K	3/3	70
MEP814A, 15KW, 400HZ Generator Set	2,240	10K	3/3	70
MEP805A, 30KW, 50/60HZ Generator Set	3,005	10K	3/3	70
MEP815A, 30KW, 400HZ Generator Set	3,015	10K	3/3	70
MEP806A, 60KW, 50/60HZ Generator Set	3,760	10K	3/3	80
MEP816A, 60KW, 400HZ Generator Set	3,850	10K	3/3	80

b. Materials. The following materials are required to rig this load:

(1) Sling set (10,000-pound capacity).

(2) Tape, adhesive, pressure-sensitive, 2-inch wide roll.

(3) Cord, nylon, Type III, 550-pound breaking strength.

(4) Webbing, cotton, 1/4-inch, 80-pound breaking strength.

(5) Felt sheet, cattle hair, Type IV, 1/2-inch or suitable substitute.

c. Personnel. Two persons can prepare and rig this load in 20 minutes.

d. Procedures. The following procedures apply to this load:

(1) Preparation. Prepare the load using the following steps:

(a) Close, lock, and secure all doors and panels with tape.

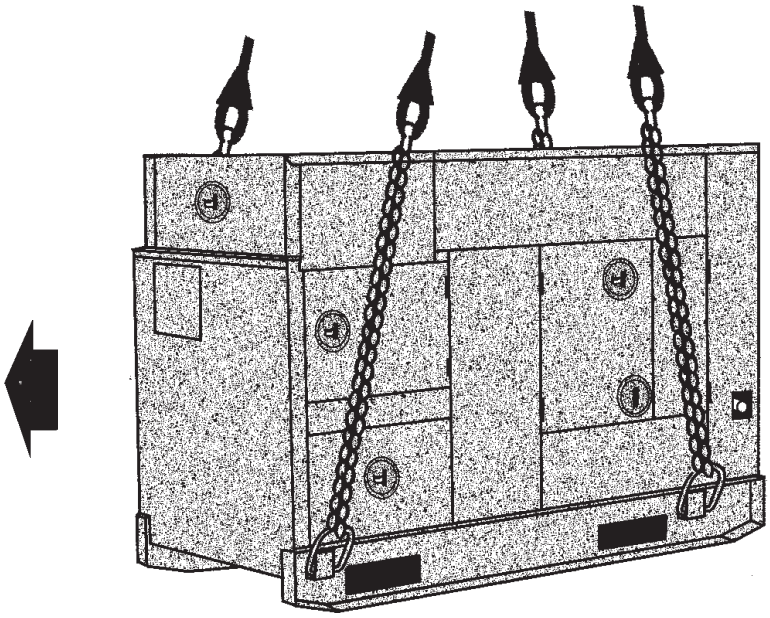
(b) Close and secure the exhaust cover with tape.

(c) Close vents on the fuel cap.

(2) Rigging. Rig the load according to the steps in Figure 13-6.

(3) Hookup. The hookup team stands on top of the load. The static wand person discharges the static electricity with the static wand. The hookup person places the apex fitting onto the aircraft cargo hook. The hookup team then moves clear of the load but remains close to the load as the helicopter removes slack from the sling legs. When successful hookup is assured, the hookup team quickly exits the area underneath the helicopter to the designated rendezvous point.

(4) Derigging. Derigging is the reverse of the preparation and rigging procedures in steps d (1) and d (2).



RIGGING STEPS

1. Position apex fitting on top of the generator. Route outer sling legs 1 and 2 to the front of the generator and inner sling legs 3 and 4 to the rear. Sling legs 1 and 3 should be on the left side of the load.

2. Loop the chain end of sling leg 1 through the left front lift provision located at the front of the generator inside of the left skid. Place the correct link from Table 13-6 in the grab hook. Repeat with sling leg 2 on the right front lift provision.

3. Loop the chain end of sling leg 3 through the left rear lift provision located at the rear of the generator and inside the skid. Place the correct link from Table 13-6 in the grab hook. Repeat with sling leg 4 on the right rear lift provision.

4. Secure the lift provision in the up position with tape and pad the slings where they contact the generator.

5. Cluster and tie or tape (breakaway technique) all sling legs together on top of the unit to prevent entanglement during hookup and lift-off.

Figure 13-6. Skid Mounted Tactical Quiet Generator Sets